

REMARKS

A. Introduction

Claim 1, 4, 14-19 and 22-32 are pending and under consideration.

In the Office Action of June 18, 2007, all of the claims were rejected as obvious by Imamasu (JP 10-312789). Moreover, the claims were rejected as indefinite.

In response, claims 14 and 19 have been cancelled and claims 1, 4, and 29 have been amended. No new matter has been introduced.

B. Rejection under 35 USC §112

Claims 22, 28, 29, and 31 have been rejected under 35 USC 112 as being indefinite.

Regarding claim 22, the Examiner alleges the language "and mixtures thereof" renders the claim indefinite. A claim is definite, however, if it particular points out and distinctly claims the subject matter which Applicant regards as his invention. In claim 22, the "mixtures" are limited to combinations of the listing of compounds. Thus, there is no ambiguity as to the scope of the claim and the claim is definite.

Regarding claims 28, 29, and 31, the issues pointed out by the Examiner have been addressed.

Accordingly, reconsideration and withdrawal of these rejections are requested.

C. Rejection under 35 USC §103

Claims 1, 4, 14-19, and 22-32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over JP10-312789 ("JP '789"). Applicant traverses these rejections for at least the following reasons.

Independent claims 1 and 4 present recite, *inter alia*, a "sintered mesophase carbon material." The present general inventive discloses that the combination of a cathode comprising $\text{Li}_x\text{Fe}_y\text{PO}_4$ with an anode comprising anode active material of mesophase carbon with no binders yields a high discharge volume. This effect is not obtained by changing LiCoO_2 into $\text{Li}_x\text{Fe}_y\text{PO}_4$ using sintered mesophase carbon nor is it obtained by changing an anode into a binderless anode with sintered carbon from an anode with a binder and sintered mesophase carbon using $\text{Li}_x\text{Fe}_y\text{PO}_4$. None of the prior art of record disclose or suggest combining

$\text{Li}_x\text{Fe}_y\text{PO}_4$ and a binderless anode with a sintered mesophase carbon. Further, none of the prior art of record disclose or suggest combining a cathode active material and an anode active material to effect a discharge volume. Still further, none of the prior art of record discloses or suggests combining a cathode active material of $\text{Li}_x\text{Fe}_y\text{PO}_4$ and an anode active material of sintered mesophase carbon to effect a discharge volume. Accordingly, the present general inventive concept is patentably distinct from the prior art of record.

In addition to the aforementioned differences between the present general inventive concept and the prior art of record, the Examiner's rejection using JP '789 is improper. The Examiner acknowledges that JP '789 is deficient in that JP '789 does not disclose a negative electrode having a binderless sintered carbon material. See the Office Action, page 4. In fact, the opposite is true. JP '789 states that "a binder...can be added as a mixture" and provides details of using the binder. See 0013-0014. In attempt to remedy this deficiency, the Examiner forwards two arguments. First, the Examiner argues that JP '789 does not absolutely require the binder because JP '789 uses the phrase "can be added," and due to the word "can," one of ordinary skill in the art would somehow be motivated to not include the binder. Second, the Examiner argues that if a binder was not used, one would somehow be motivated to select a sintered carbonaceous material because sintered carbonaceous material are "generally formed without the use of a binder." *Id.* Both of these leaps in logic, however, are wholly unsupported.

Even though JP '789 uses the phrase "a binder...can be added as a mixture," JP '789 uses a binder and discusses such use in detail. See 0013-0014. Further, JP '789 does not illustrate how to avoid using a binder and does not otherwise disclose or suggest any benefits of not using a binder. The Examiner's entire argument is based on JP '789 use of the word "can." Applicant submits that it is improper to construe the word "can" so as to support an argument that the opposite of "can" is taught by the reference, especially when no such use is illustrated. Any contrary interpretation is wholly unsupported and is simply not a fair extension of the reference.

For these reasons, Applicant submits that the Examiner has not met the burden of establishing a prima facie case of obviousness as set forth in MPEP § 2142, portions of which are cited as follows:

"The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...
...To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in common sense of one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must disclose or suggest all the claim limitations. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

Because JP '789 discloses the opposite of what is claimed and the Examiner's motivation is grossly deficient, the rejection of claims 1 and 4 is fatally flawed. The Examiner seems to be employing impermissible hindsight.

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
 - (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
 - (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
 - (D) Reasonable expectation of success is the standard with which obviousness is determined.
- Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). (Emphasis added).

Accordingly, because JP '789 does not disclose or suggest the present general inventive concept as claimed, the rejection of independent claims 1 and 4 under 35 U.S.C. §103(a) is improper, and withdrawal of these rejections and allowance of these claims are earnestly solicited. Likewise, claims 14-19 and 22-32 depend from independent claims 1 and 4 and thus include all of the limitations of independent claims 1 and 4. Accordingly, dependent claims 14-19 and 22-32 are patentable over JP '789 for at least the same reasons discussed above with respect to claims 1 and 4. Thus, withdrawal of these rejections and allowance of these claims are respectfully requested.

D. Conclusion

It is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, there being no other objections or rejections, this application is in condition for allowance, and a notice to this effect is earnestly solicited.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 19-3140.

Respectfully submitted,
SONNENSCHN NATH & ROSENTHAL LLP

By /Adam C. Rehm/
Adam C. Rehm, Reg. No. 54,797
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, IL 60606-1080
816-460-2542 (telephone)
816-531-7545 (facsimile)

ATTORNEYS FOR APPLICANT